

**ABSTRACT**

A sensor pre-load and welding apparatus and method are disclosed.

- 5 A weld fixture apparatus includes a fixture base upon which a sensor package having a sensor base and a sensor cover is located, and a load bar associated with a spring, wherein the load bar provides a specific weight to the fixture base in order to assist in maintaining the sensor cover and the sensor base parallel to one another upon the fixture base. An adjustable
- 10 load foot is generally located above the fixture base, such that the adjustable load foot applies a pre-determined load with a specific weight to the sensor base in order to maintain the sensor cover and the sensor base securely in place as the sensor base and the sensor cover are welded to one another in order to configure the sensor package.